

REMARKS

As an initial matter, Applicant appreciates the thorough examination by the Examiner. Applicant acknowledges that the Examiner has entered the amendments filed February 14, 2008.

The Examiner's Objections

The Examiner objects to claim arguing that "holes" are "in" structures and not "on" structures. Applicant addresses the Examiner's concerns below.

The Examiner's Rejections

The Examiner rejects claims 1-7 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In response to the Examiner's rejections, Applicant submits amended claims and addresses the Examiner's concerns herein below.

The Examiner further rejects claims 1 and 4-7 as being anticipated by U.S. Patent No. 3,487,856 to Turner.

The Examiner also rejects claims 1, 2, and 4-6 as being anticipated by U.S. Patent No. 2,341,828 to Tetzlaff.

The Examiner rejects claims 1, 6, and 7 as being anticipated by U.S. Patent No. 5,010,626 to Dominguez.

The Examiner rejects claims 1 and 3 as being anticipated by Publication No. 2003/0052236 to Vogel.

Still further, the Examiner rejects claims 4-6 under 35 U.S.C. §103(a) as being unpatentable over Turner in view of Vogel.

In response to the Examiner's rejections, Applicant submits amended claims and addresses the Examiner's concerns herein below.

Amended Independent Claim 1 is Now Proper and Definite

The Examiner object to claim 1 arguing that “holes” are “in” structures and not “on” structures. Applicant has amended claim 1 to read “holes provided in the bent surface...” (emphasis added).

The Examiner rejects claims 1-7 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Regarding claim 1, the Examiner argues the lack of antecedent basis for an “end” of the “body part” referred to in lines 9 and 11-12. Applicant has amended claim 1 at lines 9 and 11-12 to recite “at opposing axial edges...” (emphasis added.)

In further regard to claim 1, the Examiner argues that the recitation “the reinforcing unit being gradually reduced in thickness along its entire transverse axis from its center to both axial edges” recited in lines 18-22 is either inaccurate or misdescriptive, and lacks clarity. Applicant has amended claim 1 to recite “the reinforcing unit being gradually reduced in thickness along a circumferential direction extending from the center of the reinforcing unit to both axial edges of the reinforcing unit...” (emphasis added).

Regarding claim 3, the Examiner argues that it is unclear if the “constant diameter” is one of the “inner and outer diameters” or another diameter. Applicant has amended claim 3 to recite that each of the upper and lower parts of the body have a constant inner and outer diameter and that the constant inner and outer diameter of one part is greater than the constant inner and outer diameter of the other part.

As for claim 4, the Examiner argues that it is unclear if Applicant is placing the limitation of a one sealing unit provided for each of the body part and the reinforcing unit (i.e., two sealing units) or if Applicant is placing the limitation of a single sealing unit against both the body part and the reinforcing unit. The Examiner also alleges that it is

unclear as to what constitutes an interior surface. Applicant has amended claim 4 to recite a sealing unit provided for each of the body part and the reinforcing unit (i.e., two sealing units), and that the sealing units are positioned against the radial interior surfaces of each of the body part and the reinforcing unit (emphasis added).

In view of the amendments to claims 1, 3, and 4, Applicant submits that such claims 1 are now definite.

The Amended Claims are Not Anticipated by Turner, Tetzlaff, Dominguez, or Vogel

The Examiner argues that claims 1, 2, and 4-7 are anticipated by Turner, Tetzlaff, Dominguez, or Vogel. Applicant submits that the claims are not rendered unpatentable in view of the cited art for the reasons set forth below.

Turner

Turner discloses a gasket 10 for a pipe clamp 12 having a metal band 16, lugs 14, a raised portion 26 of the gasket, and an armor strip 28 of metal positioned on the gasket adjacent to the clamp. As shown in Fig. 1, the gasket is wrapped around the pipe, the armor strip is placed on the raised portion of the gasket, and the metal band of the clamp is wrapped around the gasket such that the armor strip is adjacent to the lugs of the clamp (i.e., between the raised portion of the gasket and the clamp).

Turner Fails to Disclose a Linear Ridge that Extends into a Longitudinal Gap

Turner fails to disclose a positioning means as claimed in the present invention. In the amended claims, and referring to Fig. 3, Applicant recites a positioning means comprising a linear ridge 43 that extends longitudinally along a portion of the outer surface of the reinforcing unit 40, whereby the linear ridge engages and extends into a portion of the longitudinal slot of the body part 10, thereby horizontally positioning the

reinforcing unit against the body part. As depicted in Figs. 1, 2A, 2B of Turner, the armor strip 28, 28a positioned on the raised portion of the gasket 26, 26a prohibits any portion of the gasket to extend into the longitudinal slot of the metal band 16 adjacent to the clamp 12 (i.e., in the area of numeral “28”). Although one embodiment of Turner as depicted in Figs. 3A and 3B does not require the armor strip, the raised portion 26b of the gasket is formed from a plastic material having suitable surface hardness and strength to eliminate the need for the armor strip (column 3, lines 25-34). A plastic material of such hardness will not extend into the longitudinal slot of the metal band 16 and Turner does not meet the limitation whereby the liner ridge (i.e., positioning means) engages and extends into at least a portion of the longitudinal slot of the body part.

Thus, Turner does not disclose each and every element of the present invention, including the limitations set forth in amended claim 1, and therefore must be removed as a §102(b) reference.

Turner Fails to Disclose a Sealing Unit Positioned Against the Body Part and Reinforcing Unit

Moreover, Turner fails to disclose a sealing unit positioned against the interior surface of the body part or band and the reinforcing unit or gasket. Applicant claims a sealing unit provided for each of the body part and the reinforcing unit, wherein the two sealing units are positioned (1) against the radial interior surface of the body part and the radial surface of the reinforcing unit. Turner discloses a single sealing unit, namely the raised portion 26 of the gasket 10 positioned solely against the interior surface of the band 16 or body part.

Thus, Turner does not disclose each and every element of the present invention, including the limitations set forth in amended claim 1, and therefore must be removed as a §102(b) reference.

Tetzlaff

Tetzlaff discloses a clamp 15 for connecting a hose 16 and a pipe 17 together. The clamp 15 includes a clamp band 18 having looped end portions 19, 20, cylindrical connector members 22, 23 formed by the looped end portions, a bridge 30 spanning the gap between the looped ends, and a tightening screw 24 for interconnecting the two connector members thereby securing ends of the hose and pipe together.

Tetzlaff fails to disclose what Applicant claims and illustrates in Fig. 3, namely a pipe joint having, among others, a linear ridge 43 that extends longitudinally along a portion of the outer surface of a reinforcing unit 40, whereby the linear ridge engages and extends into a portion of the longitudinal slot of the body part 10. The alleged reinforcing unit (or bridge) 30 of Tetzlaff does not define a positioning means of the type claimed herein and no part of the bridge engages or extends into the longitudinal slot between the ends of the clamp.

Thus, Tetzlaff does not disclose each and every element of the present invention, including the limitations set forth in amended claim 1, and therefore must be removed as a §102(b) reference.

Tetzlaff Fails to Disclose a Sealing Unit Positioned Against the Reinforcing Unit

Tetzlaff further fails to disclose a sealing unit positioned against the interior surface of the reinforcing unit or bridge 30. Applicant claims a sealing unit 11, 41 provided for each of the body part 10 and the reinforcing unit 40, wherein the two sealing units are positioned against the radial interior surface of the body part and the radial interior surface of the reinforcing unit. Tetzlaff fails to disclose any equivalent of a sealing unit positioned against the interior surface of the body part or band 18, or the

interior surface of the reinforcing unit or bridge 30. Applicant notes that the Examiner has mischaracterized the hose 16 of Tetzlaff as the sealing unit.

Thus, Tetzlaff does not disclose each and every element of the present invention, including the limitations set forth in amended claim 1, and therefore must be removed as a §102(b) reference.

Dominguez

Dominguez describes a hose clamp having a metal band 3 that defines two closed end loops 1, 2, a captive nut 6 having a flange 7, and a tightening screw 9 for drawing the clamp together. The alleged reinforcing unit or nut 6 fails to define a linear ridge that extends into the longitudinal gap of the type claimed herein.

Dominguez Fails to Disclose a Linear Ridge that Extends Outwardly into a Longitudinal Gap

Dominguez fails to disclose a positioning means as claimed in the present invention. Applicant recites in amended independent claim 1 a linear ridge 43 that extends longitudinally along a portion of the outer surface of the reinforcing unit 40, whereby the linear ridge engages and extends outwardly from the interior of the body part between the circumferential edges thereof and into a portion of the longitudinal slot of the body part 10. As depicted in Figs. 1, 3, and 4 of Dominguez, the captive nut 6 (or alleged reinforcing unit) extends between the axial edges of the band (or body part) transverse to the longitudinal axis of the band and not outwardly from the interior of the body part. Further, the captive nut 6 is not linear—rather it is circular in shape.

Thus, Dominguez not disclose each and every element of the present invention, including the limitations set forth in amended claim 1, and therefore must be removed as a §102(b) reference.

Vogel

Vogel discloses a clamp 20 having a band 22 with a cylindrical main body 24, bolt mounted flanges 26 that project outwardly from the main body, reinforcing bars 30, 32 positioned on the flanges, and a sealing body 28 positioned between the flanges and outer reinforcing bars. Vogel fails to depict a positioning means for horizontally aligning an alleged reinforcing unit (sealing member 28) against the body part or main body relative to the central longitudinal axis of body part.

Vogel Fails to Disclose a Linear Ridge that Extends into a Longitudinal Gap

Vogel likewise fails to disclose a positioning means as claimed in the present invention. Referring to amended independent claim 1, the present invention requires a linear ridge 43 that extends longitudinally along the outer surface of the reinforcing unit 40 such that the linear ridge engages and extends outwardly into a portion of the longitudinal slot of the body part 10. As depicted in Fig. 1B and 6C of Vogel, the sealing member 28 (or alleged reinforcing unit) fails to define a linear ridge extending in a longitudinal direction along the surface of the unit to thereby horizontal position the reinforcing unit against the body part. Rather, the entire sealing member is positioned in the longitudinal slot.

Thus, Vogel does not disclose each and every element of the present invention, including the limitations set forth in amended claim 1, and therefore must be removed as a §102(b) reference.

The Amended Claims are Not Obvious in View of Turner and Vogel

The Examiner rejects the claims under 35 U.S.C. §103(a) as being unpatentable over Turner in view of Vogel. Applicant submits that the amended claims are not rendered unpatentable in view of the cited art for the reasons set forth below.

Turner

As described above, Turner discloses a gasket 10 for a pipe clamp 12 having a metal band 16, lugs 14, a raised portion 26 of the gasket, and an armor strip 28 of metal positioned on the gasket adjacent to the clamp. The gasket is wrapped around the pipe, the armor strip is placed on the gasket, and the metal band of the clamp is wrapped around the gasket such that the armor strip is adjacent to the lugs of the clamp (see Fig. 1).

Turner Fails to Disclose a Linear Ridge that Extends into a Longitudinal Gap

The Examiner alleges that Turner discloses the claimed invention except for the body part being stepped around a predetermined portion thereof so that upper and lower parts of the body part relative to the central longitudinal axis thereof differ in inner and outer diameters from each other, each of the upper and lower parts having a constant diameter and defining substantially concentric graduated parts such that the constant diameter of one part is greater than the constant diameter of the other part.

The Examiner further alleges that Vogel teaches a pipe clamp with a body part having a stepped portion between substantially concentric constant diameter upper and lower parts to connect two pipes that use a lap joint at the pipe juncture.

The Examiner argues that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pipe joint of Turner with the body part having a stepped portion between substantially concentric constant diameter upper and lower parts as taught by Vogel to connect two pipes that use a lap joint at the pipe juncture.

As previously noted, Turner fails to disclose the linear ridge (i.e., positioning means) as set forth in amended claim 1. Accordingly, Turner does not teach the claimed invention except for the stepped body part. Thus, Turner is an improper reference, and

alone or in combination with Vogel fails to describe, teach, or suggest a reinforcing unit defining a linear ridge that extends in a longitudinal direction along at least a portion of an outer surface of the reinforcing unit and having a stepped shape, wherein the linear ridge positions the reinforcing unit horizontally against the body part relative to the central longitudinal axis of body part, and wherein the stepped shape of the linear ridge extends outwardly from the interior of the body part—and not laterally—into at least a portion of the longitudinal slot of the body part. In this instance, Turner must be removed as a § 103(a) reference for the reasons set forth above, and cannot be combined with Vogel.

The Amended Claims Include Patentable Subject Matter

Amended independent claim 1 now recites a pipe joint having a positioning means (of cancelled claim 7) comprising a linear ridge defined by the reinforcing unit that extends between the circumferential edges of the body part in a longitudinal direction along a portion of an outer surface of the reinforcing unit, wherein the linear ridge horizontally positions the reinforcing unit against the body part relative to the central longitudinal axis of body part, and wherein the stepped shape of the linear ridge extends outwardly from the interior of the body part and into at least a portion of the longitudinal slot of the body part. Turner, Tetzlaff, Dominguez, and Vogel individually fail to disclose such a structure, and the combination of Turner and Vogel fail to render the claimed invention obvious.

The remaining claims as amended are now definite as explained above.

Thus, Applicant submits that the amended claims are not anticipated by Turner, Tetzlaff, Dominguez, and Vogel individually, are not obvious over Turner in combination with Vogel, and are now allowable.

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CONCLUSION

Based on the foregoing amendments and arguments, Applicant submits that pending Claims 1-6 are now in immediate condition for allowance, and the same is respectfully requested.

Respectfully submitted,

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